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Case, Locality, and NP-Movement

Jeong-Shik Lee
University of Connecticut

Joan Maling
Brandeis University

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Jeong-Shik Lee & Joan Maling

University of Connecticut & Brandeis University

0. Introduction

The exploration of locality has been one of the central concerns in syntactic theory, since in general, syntactic processes apply in local domains (cf. Koster 1978, Chomsky 1981). Minimality principles have been proposed in recent work to account for the nature and properties of locality (cf. Chomsky 1986b, Rizzi 1990). J.-S. Lee (1990) proposes one locality principle, Case Minimality: a Case-assigner projects a local domain, which serves as a barrier for syntactic processes. In this paper, based on data mainly from English and Korean, we show that Case Minimality offers a unified analysis for NP-movement in various types of constructions, and in a way superior to other minimality principles. We also explore theoretical consequences of Case Minimality including the elimination of the Chain Condition (Chomsky 1986a) and certain other conditions on NP-movement proposed in the literature. Most importantly, we show that Case is a crucial property in imposing locality.

1. NP-Movement and Case Minimality

Let us consider the following two sets of examples.

(1) a. $John_i$ was seen t_i
b. $John_i$ is believed [t_i to be intelligent]
c. $John_i$ seems [t_i to be intelligent]

(2) a. *John$_i$ strikes t_i that Mary is crazy
b. *John$_i$ surprises t_i that Mary is crazy
c. *John$_i$ seems to t_i that Mary is crazy

In (1) passive verbs and the verb *seem* are not Case-assigners in English (Chomsky 1981), and NP-movement is possible. On the other hand, in (2) the verbs *strike, surprise* and the preposition *to* are Case-assigners, and NP-movement is not possible. This contrast provides the initial motivation for the idea of Case Minimality: a Case-assigner projects a barrier. This idea may be formulated as the condition stated in (3) (see J.-S Lee (1992) for more elaborated reformulation).

(3) Case Minimality Condition (cf. J.-S. Lee 1990):
In the configuration ... α ... [γ ... δ ... β] ..., α does not govern β if γ is an immediate projection of a Case-assigner δ.

We first make the following assumptions for the purposes of discussion: (a) NP-trace must be antecedent-governed under the Empty Category Principle (ECP) (Chomsky 1986b, Baker 1988, inter alia), and (b) V'-level does not appear when there is no SPEC of VP, and similarly for the P'-level (cf. Chomsky 1986b).

Now under Case Minimality, the non-Case-assigning verbs in (1) do not project barriers for the NP-traces, and INFL projects a barrier I' for the NP-traces. But the NP-traces can be antecedent-governed by INFL via SPEC-head agreement despite the barrier I', hence the ECP will be satisfied. On the other hand, in (2) the Case-assigning verbs *strike, surprise* and the preposition *to* project barriers VPs and PP, respectively, for the NP-traces. Thus, the NP-traces in (2) cannot be antecedent governed, resulting in an ECP violation.

Chomsky (1986a) proposed to capture the contrast between examples like (1) and those like (2) in terms of the Chain Condition, stated in (4):

(4) Chain Condition (Chomsky 1986a): a maximal A-Chain (α_1,...,α_n) has exactly one Case-marked position (namely, α_1) and exactly one Θ-marked position (namely,α_n).

NP-movement in (1)-(2) forms an A-Chain (*John$_i$*,t_i), where *John* is the head and its trace t_i is the tail. In (1) the Chain head *John* is in the unique Case-position and the tail t_i is in the unique Θ-position, thus being consistent with the Chain Condition. On the other hand, in (2) the Chain head *John* is not in a unique Case-position, since the tail t_i is also in a Case position. Hence

the sentences in (2) violate the Chain Condition.

In sum, the grammaticality contrast between (1) and (2) can be captured either by the Chain Condition, or by Case Minimality in conjunction with the ECP. In the remainder of this paper, we will show that the descriptive Chain Condition can be dispensed with in favor of the locality principle, Case Minimality.

2. Long Distance NP-Movement

Let us consider the following examples of long distance NP-movement, discussed in Chomsky (1986b), Baker (1988), Rizzi (1990), Lasnik & Saito (1992), inter alia, from different perspectives.[1]

(5) a. *John$_i$ seems [that [it is likely [t_i to win]]]
b. *John$_i$ seems [that [it was told t_i [that Mary will win]]]
c. *There$_i$ seems [that [it is likely [t_i to be a riot]]]

In (5a-c) NP-movement crosses over a finite clause boundary, and the result is sharply ungrammatical. Note that the tail of the A-Chains produced by NP-movement does not bear any Case. Thus, the Chain Condition cannot rule out these sentences. Under Case Minimality, on the other hand, INFL in the intermediate clauses projects a barrier I' for the NP-traces. Thus, the NP-traces cannot be antecedent-governed due to this barrier, hence an ECP violation results. Since the embedded SPEC of IP is occupied by *it*, SPEC-head agreement cannot save the NP-movement in question.[2]

Next, consider the following example of "illicit NP-movement," discussed in Lasnik (1985).

(6) *John$_i$ is believed [that [he$_i$ likes t_i]]

Lasnik (1985) pointed out that the ungrammaticality of (6) cannot be accounted for by Binding Condition A, since there is a local binder *he$_i$* for the NP-trace in its governing category, i.e., the embedded clause. Lasnik relied on the Locality Condition on Chains (LCC) (Chomsky 1981), which prohibits representations like (6), where *John$_i$* c-commands *he$_i$* and *he$_i$* in turn c-commands t_i. Under Case Minimality, the Case-assigning verb -like- in the embedded clause projects a barrier VP in (6), thus blocking antecedent government of the NP-trace and leading to an ECP violation.

The Case Minimality approach extends to another instance of long distance NP-movement, illustrated in (7).

(7) *John$_i$ is illegal [$_{CP}$ [$_{C'}$ for [t_i to drive this car]]]

The ungrammaticality of examples like (7) has been attributed to the **for-to* filter (Chomsky & Lasnik 1977). According to Case Minimality, in (7) the Comp *for*, being a Case-assigner, creates a barrier C' for the NP-trace, thereby leading to an ECP violation.

We also discuss some grammatical examples of long distance NP-movement in terms of Case Minimality. Consider the following ECM constructions from Lasnik and Saito (1992).

(8) a. I believe [John$_i$ to be likely [t_i to win]]
b. I consider [John$_i$ likely [t_i to win]]
c. I believe [there$_i$ to be likely [t_i to be a storm]]

In (8a-c) NP-movement can take place without crossing any barrier, since there are no Case-assigners to project barriers between the traces and their antecedents. Thus, the NP-traces in (8a-c) can be antecedent-governed, satisfying the ECP.

Unlike in a sentential construction like (1b), raising is not possible in a nominal construction, illustrated in (9).

(9) *[$_{NP}$ John$_i$'s [$_{N'}$ belief [$_{IP}$ t_i to be intelligent]]]

Under some previous analyses, in (9) the head N, *belief*, being an oblique Case-assigner (cf. Chomsky 1986b, Lasnik & Saito 1992) or being distinct from [+V] (cf. Cinque 1990, Rizzi 1990), makes its IP complement a barrier for the NP-trace. (9) would then be ruled out by the ECP or the Extended Uniformity Condition (EUC) (Lasnik and Saito 1992), the gist of which is that NP-movement cannot cross a barrier.[3] But the Chain Condition cannot exclude (9), since the tail of the A-Chain does not bear any Case.[4]

On the other hand, the ungrammaticality of (9) follows directly from Case Minimality. Since the head N *belief*, a Genitive Case-assigner, projects a barrier N' under Case Minimality, the NP-trace cannot be antecedent governed, hence in an ECP violation. The crucial assumption here is that in English no SPEC-head agreement occurs in the nominal construction due to the lack of AGR element in this construction (Lasnik & Saito 1992). (See J.-S. Lee (1992: chapter 7) for detailed discussion of NP-movement in other nominal constructions under Case Minimality.)

3. Case-Marked NP-Trace

In the previous section, we discussed examples of long distance NP-movement in terms of Case Minimality and the ECP, and showed that the Chain Condition is inadequate to account for the ungrammaticality of examples like (5,9). In this section, we discuss some grammatical examples which violate the Chain Condition, thus leading us to reject this condition. The core part of the Chain Condition is that the tail of an A-Chain cannot be Case-marked. Thus, if there are examples where the tail of a legitimate A-Chain is Case-marked, the Chain Condition will be invalidated. If such examples can be handled by Case Minimality, it will be proved that Case Minimality obviates the need for the Chain Condition.

Consider the following raising constructions from Korean.

(10) a. e (*caki$_i$) ceyca-eykey [susung$_i$-kkeyse ceyil hwulyungha-
self student-to master-Nom(Hon) most admirable-
-n-kes] kath-ta
-Pres-Comp seem-Dec
'It seems to his student that the master is most admirable'
b. susung$_i$-kkeyse caki$_i$ ceyca-eykey [t$_i$ ceyil hwulyungha-
master-Nom(Hon) self student-to most admirable-
-n-kes] kathu-si-ta
-Pres-Comp seem-Hon-Dec
'*The master$_i$ seems to his student (that) t$_i$ is most admirable'

In (10a) the embedded subject *susung* cannot bind the anaphor *caki* in the matrix clause, since *susung* does not c-command *caki*. However, if *susung* moves to sentence initial position as in (10b), it can bind the anaphor *caki*, and also trigger honorific agreement (*-si* on the matrix verb is an honorific morpheme). If a possible binder for an anaphor is in an A-position (Chomsky 1981) and if honorific agreement is an instance of subject verb agreement in Korean (H.-S. Choe 1984, H.-S. Han 1987), the binding and honorific agreement facts indicate that in (10b) the embedded subject *susung* has been NP-moved (see also S.-H. Ahn (1990:200) for related discussion). Notice now that the embedded subject *susung* in (10a) is assigned Nominative Case. This indicates that the tail of the A-Chain formed in (10b) is a Case position. Thus, the Chain Condition stated in (4) will incorrectly rule out (10b).[5] (See also Sigurðsson (1989) for similar examples in Icelandic.) On the other hand, under Case Minimality, the grammaticality of (10b) is predicted. Since neither the intervening matrix verb *kath-* 'seem' nor the Comp *-kes* are Case-assigners, they do not project barriers for the NP-movement in (10b). Although the matrix INFL projects a barrier I' in (10b), the NP-trace can be

antecedent governed by INFL via SPEC-head agreement, and hence the ECP will be satisfied.

In the standard analysis, NP-movement of *John* in examples like (11a) must take place as sketched in (11b) due to the Case Filter.

(11) a. *e was seen John b. $John_i$ was seen t_i

Under Case Minimality, however, *John* in (11a) can receive Case from INFL in situ, since a passive verb, being a non-Case-assigner, does not project a barrier. Thus, it could satisfy the Case Filter without being raised to the subject position. We conclude that NP-movement must be triggered by something other than the Case Filter. Independent support for this comes from the fact that many languages, including German, Icelandic, allow Nominative NPs in VP-internal position (cf. den Besten 1982, Sigurðsson 1989). We suggest that the Extended Projection Principle (Chomsky 1981), which requires every clause to have a subject, is responsible for triggering NP-movement. The ungrammaticality of (11a) can be attributed to the fact that English does not have a null (expletive) subject.[6] On the other hand, Korean has a null (expletive) subject that can satisfy the Extended Projection Principle (cf. J.-S. Lee 1992), and thus, NP-movement can be optional as in examples like (10a,b).

In sum, we have shown that Case Minimality correctly allows NP-movement in examples like (10b) which invalidate the Chain Condition. Thus, the Case Minimality Principle obviates the need for the Chain Condition.

4. Other Minimality Principles

In this section, we show that Case Minimality offers an account for NP-movement in a way superior to other minimality principles proposed in Chomsky (1986b) and Rizzi (1990). Consider the example (1c), repeated below.

(1c) $John_i$ seems [t_i to be intelligent].

Under Chomsky's (1986b) Rigid Minimality, the verb *seem* projects a barrier VP for the NP-trace. Chomsky (1986b:74) thus proposed that the trace in question can be antecedent governed by the extended antecedent governor *seem*, which gets the index i from $John_i$ through SPEC-head agreement between $John_i$ and INFL, and then Head-head agreement between INFL and *seem*, as illustrated in (12).

(12) $John_i$ $INFL_i$ $seems_i$ [t_i to be intelligent]

As Browning (1989) pointed out, however, the above 'extended antecedent government' analysis incorrectly allows the following kind of example that violates the Head Movement Constraint (Travis 1984) (t'_i is the trace of the moved verb $have_i$).

(13) *$Have_i$ $they_i$ $must_i$ t'_i $been_i$ $arrested_i$ t_i

In (13) t'_i can undesirably be antecedent governed by the coindexed extended antecedent governor $must_i$.

Consider also the ungrammatical example (2a), repeated below.

(2a) *$John_i$ strikes t_i that Mary is crazy

The 'extended antecedent government' analysis makes the ECP inert in ruling out (2a), since although the verb *strike* projects a barrier VP under Rigid Minimality, the NP-trace can be antecedent governed by the extended antecedent governor *strike*. The Chain Condition could be invoked to rule out (2a). But we have already seen empirical reasons to reject it in section 3.

On the other hand, Case Minimality strightforwardly distinguishes examples like (1c) and those like (2a). The verb *seem* in (1c), being a non-Case-assigner, does not project a barrier, and thus, the NP-trace can be antecedent governed by INFL (via SPEC-head agreement). On the other hand, the verb *strike* in (2a), being a Case-assigner, projects a barrier VP, and thus, the NP-trace cannot be antecedent governed. In short, without the complication of the 'extended antecedent government' analysis and the descriptive Chain Condition, the contrast between (1c) and (2a) can be reduced to an independent principle, the ECP, under Case Minimality.

Next, let us turn to Rizzi's (1990) Relativized Minimality. Relativized Minimality does not block NP-movement in examples like (2a). In (2a) there is no intervening A-specifier that would block antecedent government for the NP-trace. Although Rizzi could resort to the Chain Condition, this condition must be rejected on other grounds, as discussed in section 3. Consider also the example (9), discussed in section 2 under Case Minimality.

(9) *[$_{NP}$ $John_i$'s [$_N$' belief [$_{IP}$ t_i to be intelligent]]]

Relativized Minimality does not block NP-movement in (9) due to the lack of A-specifier intervening. Thus, a separate explanation must be sought (see the

discussion around (9) in section 2 and note 3).

5. Further Discussions

Compared with the ungrammatical example (2a), the grammaticality of the following example containing the same verb *strike* is striking.

(14) $Mary_i$ strikes John $[_{SC}\ t_i$ as crazy]

Since the Case-assigner *strike* projects a barrier VP under Case Minimality, the NP-movement in (14) apparently crosses this barrier, thereby undesirably leading to an ECP violation.[7] Rizzi (1986) claimed that in a construction like (15),

(15) $John_i$ strikes $himself_i$ $[_{SC}\ t_i$ as stupid]

the small clause (SC) subject need not be c-commanded by *himself*. (This is to maintain the Locality Condition on Chains (LCC), under which *himself* is not supposed to c-command the NP-trace.) See Rizzi (1986) for evidence for this claim based on parasitic gap and Weak Crossover constructions. We suggest, based on the above Rizzi's (1986) claim, that the embedded small clause (SC) in (14) adjoins to the VP by extraposition as in (16), to be out of the 'c-command' domain of (the object of) the verb *strike*.

(16) $Mary_i$ $[_{VP}$ $[_{VP}$ strikes John t $[_{SC}\ t_i$ as crazy]]

The adjoined VP in (16) will not constitute a barrier, since it is not a projection of a Case-assigner under Case Minimality. The small clause (SC) is not a barrier, either, for the same reason. Then, NP-movement out of the extraposed small clause (SC) in (16) does not cross any barrier except I'. The NP-trace t_i can now be antecedent governed by INFL (via SPEC-head agreement), satisfying the ECP.

The Case Minimality analysis appears to rule out grammatical examples like (17) from Korean.

(17) $hyuka_i$-ka $[_{VP}$ sensayngnim-eykey $[_{V'}\ t_i$ philyoha-]]-ta
break-Nom teacher-Dat need-Dec
'Teacher needs a break'

It is assumed that *sensayngnim* is generated in SPEC of VP where it is assigned inherent Dative Case by the verb *philyoha-* (cf. Belletti & Rizzi 1988, Belletti 1988, Gerdts & Youn 1989, inter alia). If the movement in (17) is an

instance of NP-movement, it appears that this movement is incorrectly blocked by the ECP under Case Minimality, for the inherent Case-assigner *philyoha-* would project a barrier V'. In order to allow (17), however, the inherent Case-assigner must not creat a barrier when NP-movement applies. For this situation, we speculate on the following possibility. Since the verb *philyoha* assigns inherent Dative Case only to a particular argument NP *sensayngnim*, we may say that this NP takes away the inherent Case feature from the verb (the Dative Case marker *-eykey* being a realization of this Case). Now, if inherent Case is assigned at D-structure (Zaenen & Maling 1984, Chomsky 1986a), we can suggest that an inherent Case-assigner is no longer active in projecting a barrier after D-structure. The NP-trace in (17) can then be antecedent governed by INFL (via SPEC-head agreement), satisfying the ECP.[8] (See J.-S. Lee (1992) for discussions of more examples of this kind including ditransitive passives in English.)

We discuss some more problematic examples for the present analysis. Consider the following contrast.

(18) a. *Father$_i$ seems to John [$_{CP}$ (that) [$_{IP}$ t_i is generous]]
b. Father$_i$ seems to John [$_{IP}$ t_i to be generous]

In (18a) the embedded subject *father* has been NP-moved out of a finite clause. Under Case Minimality, it is not obvious how (18a) can be ruled out. Since neither the matrix verb *seem* nor the Comp *that* are Case-assigners, their projections, VP, C' would not be barriers for the NP-movement involved. The embedded IP in (18a) is not a barrier, but instead the embedded I' forms a barrier, which is irrelevant for the NP-movement. Although the matrix I' forms a barrier, SPEC-head agreement makes this barrier inactive. By comparison, NP-movement out of an infinitival complement is possible as in (18b). NP-movement in (18b) is possible under Case Minimality, since the matrix VP and the embedded IP are not barriers for the reasons just mentioned. Interestingly, NP-movement in the Korean counterpart of (18a) is possible, shown in (19).

(19) apeci$_i$-kkeyse John-eykey [$_{CP}$ [$_{IP}$ t_i kwantayha-n]-kes] kathu-si-ta
father-Nom(Hon) John-to generous-Pres-Comp seem-Hon-Dec
'*Father$_i$ seems to John (that) t_i is generous'

Under Case Minimality, NP-movement in (19) in Korean is allowed in the same way as in (18) in English.

The question is thus how to block the NP-movement in (18a) in English; apparently, some other extra definition of barrier is needed in

English.[9] It seems obvious that the contrast between (18a) and (18b) in English lies in the presence vs. absence of tense in the embedded clause out of which NP-movement takes place. In this light, it seems plausible to say that the tense in the embedded clause in English examples like (18a) plays a certain role in blocking the NP-movement in question. One possible way to capture the contrast at issue would be to assume with Stowell (1981,1982) that a tense operator must appear in the Comp position at some level of grammatical representation. Let us assume with den Besten (1978) that the tense operator appears in Comp at D-structure. Under this assumption, then, the tense operator will appear in the Comp position in the example (18a), whereas not in the example (18b) due to the lack of Comp position (cf. Stowell 1982). Given this, it can be suggested that the tense operator in the Comp position projects a minimality barrier C' for NP-movement in examples like (18a). Then, the contrast in question can reasonably be attributed to the ECP. This suggestion naturally leads us to explore the possibility that the Comp (with a tense operator), rather than INFL, is an assigner of Nominative Case in English (Stowell 1983). Then, the barrierhood of C' would directly fall under Case Minimality.[10]

But the fact that NP-movement is possible in the Korean example (19) indicates that the tense operator in the Comp position is somehow transparent in Korean, as opposed to English. Following J.-S. Lee (1992), we assume that the Comp $_{-kes}$, being a bound morpheme, is lowered to INFL at S-structure to satisfy a certain morphological subcategorization feature (with the subsequent LF movement back up to avoid an ECP violation in the sense of Chomsky 1991). Then, the tense operator in the Comp position will also be lowered to INFL along with the Comp. As a result, the Comp position will be empty, and thus, C' will not form a barrier for the NP-movement in (19).

Next, consider the following examples from Chomsky & Lasnik (1977).

(20) a. *John$_i$ is illegal [$_{CP}$ [$_{IP}$ t_i to drive this car]]
b. It is illegal [$_{CP}$ [$_{IP}$ PRO to drive this car]]

The predicate *illegal* takes a CP complement (cf. (7)), and PRO can appear in the embedded subject position as in (20b). The embedded C', CP, and IP in (20a) are not barriers for the NP-trace under Case Minimality, since apparently they are not projections of Case-assigners. Thus, it appears that NP-movement in (20a) is incorrectly allowed. For this problem, we assume that in (20a,b) a null Comp corresponding to the overt Comp *for* appears as follows.

(21) a. *John$_i$ is illegal [$_{CP}$ [$_{C'}$ ∅ [$_{IP}$ t_i to drive this car]]]
b. It is illegal [$_{CP}$ [$_{C'}$ ∅ [$_{IP}$ PRO to drive this car]]]

We suggest that only a non-lexical null Comp licenses PRO in (21b) by assigning it null Case (cf. Chomsky 1991, class lecture). Then, this null Comp in (21a), being a Case-assigner, will project a barrier C' for the NP-movement under Case Minimality, thereby leading to an ECP violation.

Finally, let us consider the following passive examples.

(22) a. *John$_i$ was a given a book to t_i
b. John$_i$ was talked to t_i

Under Case Minimality, the preposition *to* would project a barrier PP for the NP-trace. Thus, while (22a) is correctly ruled out by the ECP, (22b) will undesirably be excluded by the ECP. We assume Reanalysis between the passive verb and the preposition in examples like (22b) (but not in those like (22a))(cf. Hornstein & Weinberg 1981). Or if this Reanalysis can be viewed as P-incorporation (Baker 1988) and if the trace of an incorporated P is not a Case-assigner (Baker 1988), the PP headed by this trace will not be a barrier for the NP-trace in (22b) under Case Minimality. Either way, NP-movement will be allowed in (22b).

6. Summary

It is observed that NP-movement is possible with a non-Case-assigner, but that it is impossible with a Case-assigner. Based on this observation, we applied the idea of Case Minimality -- a Case-assigner projects a barrier -- to various types of examples of NP-movement. We have shown that Case Minimality, in conjunction with the ECP, offers a unified analysis for NP-movement and furthermore an account superior to other minimality principles. We have also shown that Case Minimality greatly simplifies the theory by rendering unnecessary a number of existing conditions, e.g., the Chain Condition, the LCC, the **for-to* filter, the EUC, and the 'extended antecedent government.' Most importantly, we showed that Case plays an important role in imposing locality.

Notes

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1. In Chomsky (1986b) and Baker (1988) the ungrammaticality of examples like (5) is attributed to the ECP, in Rizzi (1990) to Relativized Minimality, and in Lasnik & Saito (1992) to the Extended Uniformity Condition (EUC), the gist of which is that NP-movement cannot cross a barrier.

2. Chomsky (1986b:76) discussed the following example in terms of the ECP.

(i) *A man$_i$ seems [$_{IP}$ there to be killed t_i]

Under the 'barriers' system, in (i) the embedded VP forms a barrier by virtue of Rigid Minimality, and the embedded IP also forms a barrier (by inheritance from VP) for the NP-trace, hence (i) can be ruled out by the ECP. Under Case Minimality, however, NP-movement in (i) does not cross any barrier, and thus, (i) cannot be ruled out by the ECP. But we exclude (i) independently of the ECP in the following way, assuming that there is a one-to-one correspondence between a Case-assigner and a Case-assignee (Chomsky 1981, Stowell 1981). Then, either the expletive *there* or the subject *a man* will lack Case, resulting in violation of the Case Filter. Thus, we cannot adopt the Visibility Condition (Chomsky 1981,1986a) that does not require Case on non-arguments. For arguments in favor of the CaseFilter (over the Visibility Condition), see J.-S. Lee (1989), Raposo & Uriagereka (1990), Lasnik (1992), inter alia.

3. Rizzi (1990:131) notes that this approach cannot rely on the PRO theorem in excluding the following nominal construction.

(i) *[$_{NP}$ John's [$_{N'}$ belief [$_{IP}$ PRO to be intelligent]]]

Since IP is a barrier, PRO is not governed. Under Case Minimality, however, the IP in question is not a barrier, and thus PRO is governed by *belief*. Note additionally that examples like (2) are exceptions to the EUC within Lasnik & Saito's (1992) theory.

4. The trace cannot be assigned inherent Case by *belief*, either, because of the lack of Θ-relation (cf. Chomsky 1986a). As Belletti (1988), Yoon & Yoon

(1991) discuss, even an A-Chain whose tail bears inherent Case can be legitimate in quirky subject constructions, thus at least demanding modification of the Chain Condition as stated in (4).

5. A question may immediately arise as to why the same NP-movement cannot apply in the English counterpart of Korean (10b). We will return to this difference in section 5.

6. This approach, however, must deal with examples like (i):

(i) *It/*There was seen John

If *John* can be assigned Case in (i), it can satisfy the Case Filter in its place. The expletive subject satisfies the Extended Projection Principle. But (i) can be ruled out as violation of the Case Filter, as discussed in note 2.

7. There is one more peculiarity of the *strike* type construction in question. Observe the following contrast.

(i) a. There was believed to be a serious problem
b. ??/*There struck me as being a serious problem

Unlike in the regular raising construction (ia), in the *strike* type construction (ib) the expletive *there* cannot be raised. We leave this contrast open.

8. It appears that Relativized Minimality incorrectly blocks the NP-movement in (17), since this movement crosses an intervening A-specifier in SPEC of VP.

9. The difference between (18a) in English and (19) in Korean may be attributed to Binding Condition A if NP-trace is treated as an anaphor (Chomsky 1981). The English example (18a) violates Binding Condition A, since the NP-trace is not bound in its governing category, the embedded clause (Chomsky 1981). On the other hand, the Korean example (19) may not violate Binding Condition A, considering the fact that Korean lacks Nominative Island Condition (Chomsky 1980) effect (D.-W. Yang 1983). But it remains to be seen whether Binding Condition A is really responsible for the distribution of NP-trace (see Lasnik & Saito (1992) for some related discussion).

10. Cf. also Stowell (1981), where [+tense] is a Case-feature. Accordingly, INFL, not being a Case-assigner, will not project a barrier I' in the relevant examples considered so far. However, this does not affect the content of preceding discussion.

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Dr. Jeong-Shik Lee
404-208 Jukong Apt.
Sangkye-dong, NoWen-ku
Seoul 139-207
KOREA

Prof. Joan Maling
Program in Linguistics & Cognitive Science
Brandeis University
Waltham, MA 02254-9110
USA